

Amendments to the Specification

Page 1, please replace the header after paragraph 1 with the following amended header:

~~BACKGROUND OF THE INVENTION~~ Field of the Invention

Page 1, insert the following header after paragraph 2: Background of the Invention

Page 1, replace paragraph 2 with the following amended paragraph:

When an aperture grille is incorporated into a color picture tube, it is welded to a the frame of the color picture tube while being applied ~~with a~~under great tension. Therefore, a material for ~~the making an~~ aperture grille ~~of the~~for a color picture tube ~~essentially requires~~is required to have a tensile strength of at least 60 kgf/mm². Accordingly, the materials currently used for the aperture grille of the color picture tube comprise low carbon steel sheets, which have been reinforced by strengthening-forming.

Page 1, replace sentence 1 of paragraph 4 with the following amended sentence:

Further, after being welded to the frame of the color picture tube, the aperture grille is subjected to a heat treatment for blackening.

Page 2, replace paragraph 2 with the following amended paragraph:

The color picture tube comprises an electron gun and a luminescent screen which converts an electron beam into picture images. The inside of the picture tube is covered with a magnetic shield member so as to prevent the electron beam from being biased by geomagnetism. The aperture grille is also ~~requires~~ required to be used as the magnetic shield member and, therefore, should be made of a material having a great magnetic flux density (Br) and a small coercive force (Hc) representing the magnetic characteristics, in other words, a material having a great ratio of magnetic flux density to coercive force (Br/Hc). However, such a low carbon steel sheet as mentioned above, which has been subjected to strengthening-forming for obtaining a high tensile strength and also subjected to ~~the~~ heat treatment for blackening at a temperature below its recrystallization temperature, has a small magnetic flux density of up to 8 kG and a great coercive force of about 5 Oe. Therefore, it is preferable in the

present invention to use a material having a ratio of Br(kG) to Hc(Oe) exceeding 1.7.

Page 3, replace paragraph 3 with the following amended paragraph:

~~An~~ The present invention as claimed in claim 1 relates to a material for an aperture grille for use in a color picture tube made of a low carbon steel sheet containing 9 to 30 wt% of Ni, and another embodiment of the invention ~~as claimed in claim 2~~ relates to a material for an aperture grille for use in a color picture tube made of a low carbon containing 9 to 30 wt% of Ni and 0.1 to 5 wt% of Co.

Page 3, replace paragraph 4, with the following amended paragraph:

~~An~~ Another embodiment of the present invention as claimed in claim 3 relates to a ~~producing~~ method of producing a material for an aperture grille for use in a color picture tube comprising the steps of cold-rolling a low carbon steel sheet containing 9 to 30 wt% of Ni and annealing same at a

Page 4, replace paragraph 2 with the following amended paragraph:

Another embodiment of the invention as claimed in
~~claim 4~~ relates to a ~~producing~~ method of producing a material
for an aperture grille for use in a color picture tube
comprising the steps of cold-rolling a low carbon steel sheet
containing 9 to 30 wt% of Ni and 0.1 to 5 wt% of Co and
annealing same at a temperature of 400 to 500°C.

Page 4, replace paragraph 3 with the following
amended paragraph:

Still another embodiment of the invention as claimed
~~in claim 5~~ relates to a ~~producing~~ method of producing a
material for an aperture grille for use in a color picture
tube which comprises the steps of cold-rolling a low carbon
steel sheet containing 9 to 30 wt% of Ni, subjecting the same
to process-annealing at a temperature of 500 to 800°C and
another cold-rolling, and annealing same at a temperature of
400 to 500°C.

Page 4, replace paragraph 4 with the following
amended paragraph:

~~The other~~ Another embodiment of the invention as
~~claimed in claim 6~~ relates to a ~~producing~~ method of producing
a material for an aperture grille for use in a color picture
tube which comprises the steps of cold-rolling a low carbon

steel sheet containing 9 to 30 wt% of Ni and 0.1 to 5 wt% of Co, subjecting same to process-annealing at a temperature of 500 to 800°C and another cold-rolling, and annealing same at a temperature of 400 to 500°C.

Page 4, replace paragraph 5 with the following amended paragraph:

And embodiment of the invention as ~~claimed in claim 7~~ relates to an aperture grille for use in a color picture tube, which is made of a low carbon steel sheet containing 9 to 30 wt% of Ni and another embodiment of the invention as ~~claimed in claim 8~~ relates to an aperture grille for use in a color picture tube, which is made of a low carbon steel sheet containing 9 to 30 wt% of Ni and 0.1 to 5 wt% of Co.

Page 4, replace paragraph 6 with the following amended paragraph:

An embodiment of the invention as ~~claimed in claim 9~~ relates to a color picture tube incorporating an aperture grille made of a low carbon steel sheet containing 9 to 30 wt% of Ni and another embodiment of the invention as ~~claimed in claim 10~~ relates to a color picture tube incorporating an aperture grille made of a low carbon steel sheet containing 9 to 30

Page 5, replace the header under paragraph 1 with the following amended header:

~~THE BEST MODE FOR CARRYING OUT THE INVENTION~~Detailed
Description of the Invention

Page 6, replace paragraph 2 with the following amended paragraph:

As for Mn, manganese is essentially added to steel to react with sulfur in the steel so as to stabilize the sulfur as MnS, thus keeping the steel from the embrittlement during hot rolling. However, it is desirable for improving the magnetic characteristics of the steel to ~~lessen~~minimize the amount of manganese. ~~So~~Therefore the addition amount of the manganese is limited up to 0.5 wt%.

Page 7, replace paragraph 3 with the following amended paragraph:

Next, a ~~producing~~ method of producing a thin steel sheet as a material for an aperture grille for use in a color picture tube of the present invention is explained.

Page 12, replace paragraph 1 with the following amended paragraph:

The material for the aperture grille according to ~~claim 1~~ one embodiment comprises a low carbon steel sheet containing 9 to 30 wt% of Ni, and the material for the aperture grille according to ~~claim 2~~ another embodiment comprises a low carbon steel sheet containing 9 to 30 wt% of Ni and 0.1 to 5 wt% of Co. Therefore, they are excellent in the magnetic characteristics and strength.

Page 12, replace paragraph 2 with the following amended paragraph:

The ~~producing method of producing~~ the material for the aperture grille according to ~~claim 3~~ one embodiment comprises the steps of cold-rolling a low carbon steel sheet containing 9 to 30 wt% of Ni and annealing same at a temperature of 400 to 500°C, the ~~producing method of producing~~ the material for the aperture grille according to ~~claim 4~~ another embodiment comprises the steps of cold-rolling a low carbon steel sheet containing 9 to 30 wt% of Ni and 0.1 to 5 wt% of Co and annealing same at a temperature of 400 to 500°C, the ~~producing method of producing~~ the material for the aperture grille according to ~~claim 5~~ another embodiment comprises the steps of cold-rolling a low carbon steel sheet containing 9 to 30 wt% of Ni, subjecting same to process-annealing at a temperature of 500 to 800°C and another cold-

rolling, and annealing same at a temperature of 400 to 500°C, and the ~~producing~~ method of producing the material for the aperture grille according to ~~claim 6~~ yet another embodiment comprises the steps of cold-rolling a low carbon steel sheet containing 9 to 30 wt% of Ni and 0.1 to 5 wt% of Co, subjecting same to process-annealing at a temperature of 500 to 300°C and another cold-rolling, and annealing same at a temperature of 400 to 500°C. Consequently, using these methods of the present invention, it is possible to obtain the materials for the aperture grille for use in the color picture tube having an excellent tensile strength of not less than 90 kgf/mm² and good magnetic characteristics as represented by the value of Br (kG)/Hc(Oe) exceeding 1.7.

Page 13, replace paragraph 1 with the following amended paragraph:

In the aperture grilles or the color picture tubes according to ~~claims 7 and 10~~ other embodiments, the tapes constituting the aperture grilles are never loosened even when the aperture grilles are subjected to ~~the~~ heat treatment for blackening after welded to the frame of the color picture tube.